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ORIGINAL LECTURES.

CLINICAL LECTURE

ON THE STUDY OF UTERINE DISEASE; WITH CASES OF OVARIAN CYST AND VAGINISMUS.

BY PROF. T. GAILLARD THOMAS.

(Delivered at the College of Physicians and Surgeons, New York.)

Reported by P. BRYNBERG PORTER, M.D.

I AM not one of those who believe in long introductory remarks, gentlemen, but I cannot refrain from saying a few words to you by way of expressing my pleasure at meeting you at this opening clinic of the regular winter session, and to impress upon you the object of my clinic, and the way to follow it. As a general rule, I find that the student while attending lectures thinks too much about his final examination, and too little about his future career when in the practice of his profession. He is only anxious to "get through," and does not reflect upon the responsibilities and duties which will devolve upon him hereafter. But what you learn here will have but little to do with your final examination. You come to the clinic not so much to learn how to treat uterine disease as how to *study* it. You will get almost nothing in the way of actual experience here. I want simply to show you how to make a diagnosis in the diseases peculiar to women, which, I do not hesitate to say, requires more skill than in any other class of disease. This is because in these affections the patient, on account of her modesty or her unwillingness to speak of her symptoms and to submit freely to an examination, really fights against the physician's success in making a correct diagnosis. Another reason why so much skill is required is that the organs affected in these complaints are not so open to investigation as others, and no little skill and experience are necessary to find out anything at all about them. There is no class of diseases in which an erroneous diagnosis (or no diagnosis at all) is made so frequently.

You are aware how often the success of a case in court depends on the lawyer's powers of cross-examination; and the same

skill is most useful to the physician. There is the greatest difference in the world in this respect among different members of our profession, and while one will find out everything there is to be learned in this manner, another will find out nothing at all. First of all, then, I wish to show you how to examine a patient by questioning. Every physician should have a system for doing this; not that I mean that each one should invent an original plan, but simply that he should try to find out the best method, and follow it. The one which I propose to offer you I think to be the best; but opinions may differ in regard to the matter. A few years ago I had a "diagnosis class" at Bellevue Hospital, which was the most interesting with which I was ever connected, and the students found it a very rapid way of learning. Some who made the most ridiculous blunders in the early part of the course really became very skilful diagnosticians by the time it was over. Each one, you see, was obliged to make out his own diagnosis, and each one had the benefit of the mistakes which the others made. I should like to follow the same plan here, but that is manifestly impossible.

Now as to the physical examination, I will show you how every patient is examined in the private room before coming in here; but I will not make the examinations before the class. I am aware that this is very customary in Europe, but it cannot be done here, for if I should attempt it there would soon be no clinic at all, on account of the lack of patients. But even if I could do so, it would really be of no advantage whatever to you, because it would be impossible for you to see anything from the benches where you sit. I have here a patient, however [here Prof. Thomas pointed to a wooden model], who does not mind exposure, and upon whom I can demonstrate various uterine affections much better than upon the living subject.

Another point. When I see a student taking elaborate notes of a didactic lecture, I always think he loses a great deal more than he gains by it, for all the essential points touched upon by the lecturer are to be found in the books; but at a clinical lecture the case is different, and I should always advise you to take notes at these. It is very useful to note the peculiarities of different cases. No two trees are alike,

and no two cases of disease are alike. Every clinic, if the lecturer gives a faithful outline of his cases, differs in some respects from every clinic that has gone before or will come after it. I will now proceed at once to give you a practical demonstration of the method of questioning a patient.

Case I.—Multilocular Ovarian Cyst.—Catharine R.—, æt. 31 years, a native of Ireland; has been married fifteen months, and has had one child, which is now five months old. She has had no miscarriage. This woman is unusually nervous, and therefore we shall not be able to elicit the rational signs of the case as well as I should like. This nervousness is not simply the result of her coming before so many strangers, but arises in great part from the nature of her trouble, which we shall presently find out. But now to our questions. Mrs. R., how long have you been sick? (To this the patient replied that she had been in perfect health until about six weeks after the birth of her child.) What do you complain of? Answer.—“Pain in the left side.” What else? Ans.—“Weakness and pain in the back.” What else? Ans.—“A large swelling in the stomach.” The most difficult thing to do is to make a patient tell her story herself, and it can only be done in this way of repeating, “What else?” and, “what else?” till you have got it all. (After further questioning, it was ascertained that the pain had commenced in the region of the left ovary, and that after the parts had been blistered by the attending physician, it went over to the right side; after which she noticed the rapidly increasing abdominal enlargement.) We have thus obtained all we want in the way of history, and our suspicions are now fixed upon certain organs. The direct examination is over, and next comes the cross-examination. If we suspected trouble about the lungs, heart, or liver, we would, of course, direct our inquiries towards the symptoms connected with these organs; but here it is either the uterus or the ovaries about which we are concerned. On questioning the patient in reference to them, we find that she has menstruated but twice since the child was born, notwithstanding the fact that she has not nursed it since it was six weeks old. Now, in a woman of her age, up to this time perfectly healthy, there is evidently something wrong about this, and it increases our suspicions in re-

gard to the ovaries. She tells us, furthermore, that she has had leucorrhœa, some irritability of the bladder, and a feeling of pressure upon the bowels.

We now proceed to make an examination in order to get at the physical signs. The patient lying on her back, with the skirts drawn up to the chest, and a sheet thrown over the lower part of the body, the hands are placed upon the abdomen; when a large tumor, weighing probably about thirty pounds, is felt. Its shape is irregular, being nodulated in outline, and it fills the whole abdomen, from the symphysis pubis to the ensiform cartilage, and from one flank to the other. (In making an examination per vaginam, I always prefer soap to any unctuous material for lubricating the fingers.) Now making strong pressure in various directions, with one hand on the abdomen, while the forefinger of the other is placed upon the cervix uteri, I find that the uterus does not move with the tumor, or at least to so small an extent as to show that they are in all probability disconnected. The same is true when the finger is placed back of the uterus. The uterine sound next being passed, shows that the cavity presents the normal measurement.

Now, after these investigations, what is our diagnosis? Well, she has an abdominal tumor. But that is *her* diagnosis: simply what she told us when she first came here. You must arrive at something more definite than that. What kind of a tumor is it? An enlargement of the abdomen like this might be due to a variety of causes; and we will run over some of them, in order to arrive at a diagnosis by a process of exclusion, if possible. First, although so large, it might be due to

Tympanites.—What, you say, can any physician really be deceived by this condition? There are at least six cases on record (and doubtless others have occurred) in which experienced medical men have actually cut open the abdomen with the idea of performing ovariotomy, when in reality the patient was suffering only from a “phantom tumor.” It was only during the past week that I saw, in consultation with a gentleman of this city, a lady in whom the diagnosis of ovarian tumor was made by physicians at her home, a thousand miles from here, and who had come all the way to New York to have ovariotomy performed, if necessary; yet a

careful examination proved that the abdominal enlargement was due to nothing in the world but tympanites. Percussion affords us a certain means of detecting this condition, and if you get a drum-like resonance from your percussion-stroke you may be sure that there is air present, and nothing else. In the present instance there is nothing of this kind, the percussion-note being perfectly flat, like that of the thigh. Again, the enlargement might be due to

Pregnancy.—Sometimes this occurs within six weeks after delivery. But if that were the case we should find the cervix soft and dilated, while in reality it is hard and non-patulous. Then the tumor would be comparatively soft, containing a hard mass, which would be found to move on palpation; which is not the case here. Finally, we can detect no foetal heart-sounds, and all the other physical and rational signs of pregnancy are lacking. Again, it might be due to

Ascites, or Hydroperitoneum.—The characteristic feature of this condition is that the intestines float on top of the fluid, giving a tympanitic resonance above, while the percussion-note lower down is flat. We get no intestinal sound here. In some rare instances, however, the intestines are bound down to the mesentery by inflammatory adhesions, so that the fluid is found above them; and such a condition would make the diagnosis much more difficult. Again, it might be due to

Fibroid or Sarcoma of the Uterus.—In that case the tumor would be solid, and we should get no sense of fluctuation when placing one hand on one side of the abdomen and making sudden palpation on the opposite side with the other hand. Now, in the present instance we get a distinct wave on palpation, which is even very evident with the clothing on. What else might it be?

Colloid Degeneration.—Formerly this was thought to be always malignant, and was called colloid cancer; but this has been proved not to be the case. Not long since, I saw a tumor which gave a distinct wave on palpation and presented every appearance of an ovarian cyst. But on examination I found the uterus so high up that I could not reach the os with my finger, and I therefore concluded that the tumor was probably not ovarian. So, in order to make the diagnosis sure, I passed an aspirator-needle so large as to consti-

tute really a trocar, and, notwithstanding the strong suction-power of the aspirator, got no fluid at all the first time. On repeating the suction, however, I succeeded in drawing out about twenty drops, of the consistency of calves'-foot jelly. In the present case I have not as yet made any exploration to determine the character of the fluid contained in the tumor; but colloid degeneration is not common, and, I could say almost with certainty, would not be met with here. Furthermore, abdominal enlargement might be due to a

Renal or Splenic Cyst.—But a renal cyst is always high up, and always on one side, while the patient presents various symptoms connected with disease of the kidney, which is not the case here. A splenic cyst would be even higher up, and is obviously not what we have to do with.

These, then, are the negative reasons why the tumor must probably be an *ovarian cyst*. It is only by means of the hypodermic syringe that we can determine *positively* whether it is an ovarian or uterine cyst, or one of the broad ligament. As our patient resides out at Newark, I do not like to make the exploration here and then send her away in the cars. There is usually no danger attending this simple little operation, but cases have been known in which the whole contents of such a tumor have leaked away by even so small an opening as that made by the hypodermic needle, and peritonitis resulted. I have seen one such case in the Woman's Hospital; but in this ovariotomy was performed before all of the fluid had escaped. But, even without this test, I think we can pronounce with a considerable degree of certainty that it is a multilocular ovarian cyst. Its multilocular nature seems proven by the character of its surface.

Such, then, being the diagnosis, what must our treatment be? It is summed up in one word, *ovariotomy*. If, at the present day, you should neglect this, and attempt to cure this patient by the injection of iodine, electrolysis, or any such means, I should hold you culpable if evil should result. There have, indeed, been cases of recovery when these methods were employed; but they are much less certain and accompanied by infinitely greater danger than ovariotomy. If you should attempt to cure the case by internal medication, I should hold you still more culpable. But why not tap? Because tapping

does not cure ovarian tumor. It is true that a case has occasionally recovered under this means; but they are rare exceptions to the general rule. Our patient has consented to enter the Woman's Hospital at an early date, and I trust to be able to show her to you, at no distant period, entirely cured of her present trouble. It was the unexpected prospect of an operation which so excited her feelings at the time when she first came into the room. It will perhaps surprise you to learn how common these cases of ovarian cyst are. This is the first one that I have to show you, but it will not be the last: there will be plenty more of them here before the session is over. I have found that the vast majority of these tumors occur in women in the lower walks of life, and I think we can therefore reasonably conclude that their growth is due, as a rule, to low living and unwholesome surroundings. When you have performed ovariotomy over one hundred times, as I have now done, you will be convinced of the truth of the above statement, for you will have collected very few large fees for your operations.

Case II.—Vaginismus.—Rebecca G., aged 31 years; negress. She has been married eleven years, but has never had any children or miscarriages. Yet she is a member of a race proverbially prolific, and her husband is a man in robust health. On account of the peculiar nature of her trouble, it would be repulsive to me, as well as to her, to question her publicly in regard to her complaint; and I will, therefore, tell you at once that she suffers from only one symptom, and that is *dyspareunia*.

These cases occur quite frequently, and, I am happy to say, their treatment is very satisfactory. I would, consequently, be willing to guarantee our patient a cure within six weeks or two months. The history of the case is a very simple one. From the time of matrimony coitus has always been impossible. Its attempt produced not only intense pain but intense hysterical excitement. That this was not simply a mental condition is proved by the fact that when the finger of the physician is passed into the vagina it produces just the same result. And now I will speak more particularly of the examination which I made in the case. The first thing that I discovered was a distinct and perfect hymen. You will not infrequently hear lec-

turers on anatomy, in exhibiting this membrane to a class, remark, for the sake of the witticism, that the students had better examine it very carefully, for it is a great curiosity; but this is a libel against the female sex, and utterly untrue. Of the unmarried females who come to this clinic, probably as many as eight out of ten have it.

As soon as my finger touched the hymen, the patient lifted her pelvis from the table and complained of the most intense pain. The opening between the upper part of the vagina and the hymen was just sufficient to admit the tip of the finger; but, notwithstanding the pain it occasioned, I pressed my finger still farther in. Immediately, however, all the muscles contracted spasmodically upon it, and the pain became so excruciating that I was obliged to withdraw my finger without reaching the uterus. This is all that I discovered, except a small caruncle or mucous polypus attached to the urethral orifice, which, however, I think could hardly have been the cause of the trouble.

Now, what is the matter? The condition here present has been known for many years, and was first described by the old obstetrician Burns. Within the last few years Dr. Marion Sims has brought it more prominently before the profession, and given it the name of *vaginismus*, or vaginal spasm, which perfectly describes the character of the affection. If ether had been given, I would have had no trouble whatever in passing my finger up to the cervix uteri, because it would have relaxed the spasm of the vaginal muscles.

In these cases the hymen is usually perfect, or nearly so, and the whole difficulty arises from one of two conditions, or both: 1st, a very small entrance to the vagina; 2d, a persistently hyperæmic condition of the hymen and surrounding parts.

The affection, as I said before, is entirely curable. The treatment is as follows. First, the patient is thoroughly anaesthetized with ether, and then each *labium majus* is held back by an assistant. The parts being thus exposed, I would remove the little caruncle above spoken of by means of the scissors, and, if any hemorrhage resulted, the urethra might be tamponed; though this would probably be unnecessary. The hymen should then be seized with a pair of mouse-toothed forceps and snipped completely out with the scissors, which are preferable to the knife for

this purpose. Some will tell you that there is great danger of hemorrhage from this procedure; but so there is great danger of hemorrhage in amputating a finger, if you do not take precautions to prevent or stop it. Hemorrhage can only come from carelessness on the part of the operator. To stop the bleeding the sponge is usually all that is necessary, but if a little vessel spouts, tie it, of course. Any oozing that may follow the cutting will be stopped by a contrivance which I shall presently mention. Next, it is necessary to cut down and make the entrance of the vagina somewhat larger, and while this is being done (with a bistoury) the assistants stretch the vagina on either side. The incisions are made into the perineal body, but not through any muscle, and three of them are usually necessary, one in the median line and one on either side. Lastly, one of Sims's plugs is to be pushed into the vagina. These are made of glass, and of the shape which I indicate on the blackboard. It is best to hold the plug in place by means of a broad strip of adhesive plaster passing from the lower part of the back over the perineum and up to the abdomen, and with a hole cut in it for passing a catheter. This retains it much more securely than any T bandage could do; and it is usually a very difficult undertaking to put the plug back when it has once slipped out. The plug effectually puts an end to all hemorrhage, and should be left in position for three or four days before being disturbed. At the end of that time it should be taken out, so as to permit the vagina to be thoroughly syringed with warm water, and it should then be replaced as before. In a week's time the patient will be able to remove it and put it back herself; and it ought to be worn pretty constantly for two or three weeks. By that time it need only be worn at night, and in the course of a month or six weeks she will be able to dispense with it altogether.

After a considerable experience with this operation, I may say, in conclusion, that I have yet to meet with a case accompanied with hemorrhage, and have yet to meet a case which was not cured by it.

THE death of Dr. Bazin, the eminent dermatologist, and former physician of the Hôpital Saint-Louis, is announced.

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ORIGINAL COMMUNICATIONS.

TREATMENT OF IN GROWN TOE-NAIL.

BY CHARLES T. HUNTER, M.D.,

Demonstrator of Surgery in the University of Pennsylvania.
(Read before the Philadelphia County Medical Society,
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IN the whole range of minor surgical affections there are few that occasion more discomfort and annoyance to the afflicted patient, or exercise the skill and try the patience of surgeons to a greater extent, than the disease termed in-growing of the nail. This apparently trivial disease is a constant source of suffering to the patient, and in some cases, when it has been aggravated either from neglect on the part of the patient himself, or in consequence of causes for which he is not responsible, renders his condition wellnigh unbearable, and prepares him to submit to almost any plan of treatment that offers the slightest hope of affording relief.

The common seat of this painful affection is at the outer edge of the nail of the great toe, although in a few cases it is met with at the inner edge, and occasionally both sides of the nail are involved. The smaller toes do not always escape, for, at times, we find them affected in the same manner. The usual exciting cause of in-growed toe-nail is the foolish fashion that many individuals, especially young people, have of wearing pointed shoes, or high-heeled shoes too short for the feet. In the case of the pointed shoe the movable soft parts of the outer side of the great toe are rubbed against the edge of the nail in walking; in that of the short high-heeled shoe the foot tends to slide forward in the shoe at every step, and the edge of the nail is pressed down on the delicate integument. As a result in either case, the irritation is liable to excite ulceration of the soft tissue at the edge of the nail.

The habit that many persons have of cutting off the corners of the nail close to the quick, instead of trimming the nail square across, favors the development of in-growing of the nail.

Injuries, contusions, and lacerations of the toe, in the vicinity of the nail, not unfrequently result in this troublesome affection.

Prolonged standing on the feet has been alleged by some observers to be a cause of

in-grown toe-nail: this, however, I can scarcely admit to be a sufficient cause, unless the foot be confined or cramped in a badly-fitting shoe.

This disease is easily recognized. It is simply an unhealthy ulcer of the toe, involving the nail-fold and the matrix to a greater or less extent, and is kept in a state of chronic irritation by the presence of the edge of the offending nail.

As long as the edge of the nail is suffered to remain in direct contact with, or to lie imbedded in, the granulation, there will be no chance of a spontaneous cure; for the nail in this diseased condition of the part acts like a foreign body, and thus serves to keep up inflammatory action.

In the treatment of this painful affection of the toe, very little advance has been made since the days of Celsus. This distinguished author recommended excision of the nail and the subsequent application of caustics to the nail-bed, a method most commonly practised by surgeons ever since. Yet surgeons have been very industrious in their attempts to devise less serious means for the radical and permanent cure of ingrowing of the nail.

Gossein states, in one of his lectures on surgery, that he has counted as many as seventy-five plans of treatment suggested by surgeons from time to time, thus clearly proving that no one treatment has been uniformly satisfactory in its results. The great desideratum in the treatment of this disease is, in my opinion, the restoration of the diseased part to a healthy state without sacrificing the nail, the natural covering and protection of the extremity of the toe. Therefore, any treatment that will accomplish this in all cases ought certainly to be preferred, even if a successful result necessitate longer time and more personal attention on the part of the surgeon than are commonly required when destruction of both nail and matrix is resorted to as a radical cure.

As I have already intimated, the theory of the treatment employed at the present time for radical cure of in-grown toe-nail implies permanent loss of the nail. According to the advocates of this theory, it is not sufficient alone to remove the nail. The matrix likewise must be destroyed, so that the nail can never be reproduced. To secure this result,—*i.e.*, eradication of both nail and matrix,—two methods are advised, by one of which the

nail is forcibly torn out, and the matrix destroyed by a potent caustic, by the other the last phalanx, together with the superincumbent nail and matrix, is removed. By either of these heroic plans it is evident that the in-grown nail will be most effectually removed, but not without serious risk and much subsequent pain and great discomfort to the patient. Avulsion of the nail and cauterization of the matrix is an exceedingly painful operation, and one that very few persons have the fortitude to submit to without the aid either of a general or of a local anaesthetic. In applying the caustic to the uncovered matrix, great care must be observed lest the destructive action of the caustic, particularly if caustic potassa be used, extend to the subjacent periosteum and bone. When this unfortunate circumstance occurs, of course there are prolonged suppuration and more or less necrosis of the bone,—complications that render the poor patient's condition, for a time at least, really worse than it was before the operation, and necessarily retard the cure for an indefinite period.

Then, on the other hand, if cauterization of the nail-bed be not sufficiently thorough to destroy it completely, a deformed nail, or a thick corneous substance, poorly adapted to protect the extremity of the toe, is liable to be formed. That these unpleasant consequences do sometimes follow the method just described is well known to every surgeon who has had much experience in the treatment of ingrowing of the toe-nail.

I am free to acknowledge that in my own practice I have had at least two cases in which there was exfoliation of a portion of the last phalanx in consequence of the destructive effect of the caustic potassa extending beyond the limits of the matrix.

Removal of the distal phalanx with the nail and matrix *en masse* from the dorsal aspect of the toe I have seen resorted to only by one surgeon, although I presume other surgeons have had recourse to the same method as a means of curing ingrown toe-nail. The advantage claimed for this heroic plan is, that the plantar flap of dense fibrous tissue, when union has taken place between the edges of the wound, forms the extremity of the toe, and thus affords a surface peculiarly fitted to sustain pressure.

It is scarcely necessary to observe that

an operation of this gravity is not unattended with risks of a serious nature. Owing to the character and the extent of the part involved in this operation, the patient would be exposed to a variety of dangerous complications, such as erysipelas, burrowing abscesses, angeoleucitis, pyæmia, tetanus, etc., some of which are commonly fatal. Yet, should some of these complications supervene in the progress of a case treated by this method, the patient's recovery from what might almost properly be called an amputation of the toe would be comparatively slow under the most favorable circumstances.

Instead of extirpation of the entire nail and matrix, many surgeons are content with removal of only that part of the nail which is instrumental in keeping up the trouble from which the patient is suffering. If the case be of an aggravated character, *i.e.*, one in which the edge of the nail is incurved and deeply imbedded in a mass of exuberant granulations, these surgeons destroy the limited surface of matrix exposed by avulsion of a narrow section of the nail, and the granulations with caustic. The ultimate effect of this proceeding is to leave the toe only partially covered with a nail having a sharp margin that is always ready on the slightest provocation to excite ulceration of the contiguous soft parts. Of course, in the cases in which only a section of the nail is torn out and the matrix not destroyed, the nail will soon be reproduced; and, if great care be not taken by the surgeon, or the patient himself, to prevent it, the new nail as it grows out will take the abnormal direction of the old, and, as a consequence, will tend to keep up or renew the disease for the relief of which the operation was performed.

Several less severe methods than either of the above are described in surgical textbooks. The object of these various milder methods is the cure of this very troublesome disease without loss of nail and matrix,—an exceedingly desirable result, and one well worth striving to attain.

The treatment in greatest favor with those who believe that extraction of the whole or a part of the offending nail is not necessary in order to effect a cure, consists in the separation of the nail from the ulcer by interposing some foreign body between them. Gosselin* gives credit to

an Italian surgeon of the sixteenth century, by the name of Fabrizio d'Acquapendente, for having first originated this rational treatment. To keep the edge of the nail from the exquisitely sensitive ulcer, Fabrizio used lint. Desault recommended a strip of tin. Boyer preferred a thin piece of lead. Cork has also been suggested. According to Gosselin, when lint is used it is to be pressed under the edge of the nail with a small spatula or the flat end of a probe. A small pledget of lint is also to be placed between the outer edge of the nail and the nail-fold, by which means the ulcerated soft parts are kept separated from the nail. To complete this dressing, and to keep the lint in place, a narrow strip of adhesive plaster is to be wrapped around the toe two or three times. This dressing is to be renewed every other day.

To this method, as described by Gosselin in the work quoted above, many objections have been alleged by surgeons who prefer the so-called radical treatment, among which are the length of time necessary to perfect a cure, six or eight weeks being the time said to be required; the pain attending frequent renewals of the dressings; the necessity of confining the patient to his bed or to his room during the progress of the treatment; and, finally, the great liability to a recurrence of the disease after a cure has been effected. It has been my experience that the radical methods, *viz.*, extraction of the whole or a part of the nail with or without the matrix being destroyed, or excision of the last phalanx with the overlying nail, are by no means free from some of these objections, nor from many others of a graver character, that have already been enumerated. In my service in the out-patients' department of the Pennsylvania Hospital and of the Hospital of the University of Pennsylvania I have treated a good many cases of ingrowing of the toe-nail, of all degrees of severity, during the past five or six years. I have had, therefore, a fair chance of testing different methods of treatment and of comparing their respective results.

The method that has furnished the most satisfactory results in my hands is one that Dr. John Neill, late Professor of Clinical Surgery in the University of Pennsylvania, practised with the most gratifying success while he conducted the surgical clinic in the above institution. The principle of Dr. Neill's method is identical with that of Fa-

* Gosselin's Surgical Lectures, p. 6.

brizio's: yet the former method differs from the latter in many very important details, to which fact, in my opinion, Dr. Neill's success may be properly attributed.

The first step in Prof. Neill's method consists in cutting or scraping a longitudinal groove in the nail, extending from its root to the free end, in order that its edge may be more easily raised from the ulcer. Then, after the surface of the ulcer has been thoroughly cleansed and dried, collodion is to be painted over the surface of the granulations with a camel's-hair pencil. As soon as the granulations are covered with a film, consequent upon evaporation of the ether contained in the collodion, cotton in small quantities is to be gently pressed well under the edge of the nail, with an instrument that will be described farther on. When sufficient cotton has been introduced beneath the nail to keep its edge separated from the soft parts, a small roll of the same substance is to be placed between the outer margin of the nail and the contiguous nail-fold, after which glycerized collodion or simple collodion is to be brushed freely over the diseased parts and the dressing.

To complete the dressing, a narrow strip, about a centimetre in width, of ordinary adhesive plaster is to be wrapped around the toe two or three times. In applying the strip of plaster, care should be taken to carry it from the nail to the swollen nail-fold, and thence around the toe, by which means, together with the small roll of cotton placed as above described, the nail-fold will be pressed off from the offending nail. This entire dressing need not be changed oftener than once a week, or three times in two weeks, in the majority of cases.

In a few cases of an aggravated character, in which the sharp edge of the nail is deeply buried in the soft tissue, and exuberant granulations cover a portion of the nail, for the first few days of the treatment, as a preliminary measure, nothing except simple collodion is to be applied to the diseased part. In these exceptional cases the effect of the collodion on the mass of granulations, in consequence of its contractile property, will be to press the granulations away from the nail, and thereby to facilitate interposition of cotton between the margin of the nail and the ulcerated soft parts. When a patient has cut his nail short, especially at the outer corner, under the false impression that by this means he

may obtain relief, some difficulty will be experienced in pressing cotton under the margin of the nail. It is, therefore, of the utmost importance in the treatment of such a case that the free end of the nail be suffered to grow out square, for then cotton can be more easily pressed beneath the nail, and effect greater separation of the affected parts, thus hastening the cure.

The time required to accomplish a cure by this method will depend on the nature of each individual case, and the thoroughness with which the details of the treatment are carried out by the surgeon. In mild cases of short duration, in which the outer corner of the nail has not been cut off short, one or two renewals of the dressing is all that is usually required. The worst cases are generally entirely cured in a period varying from four to six weeks, rarely longer, and during this time it is not necessary to keep the patient in bed, or even confined to his room. Indeed, I always advise these patients not to give up their work while they are under treatment,—a matter of great moment to those who are dependent on their daily earnings for support.

As a result of my experience in the treatment of cases of in-growing toe-nail that were subjected to the operation of avulsion of the whole or a part of the offending nail, together with the cauterization of the matrix and the granulations, I am satisfied that this heroic method requires much more time in which to effect a cure than the method so successfully practised by Prof. Neill. Even when a cure has been obtained by the method of avulsion of the nail, the patient is unable for some time afterwards to wear a boot or shoe that is liable to press on the toe, in consequence of the sensitiveness of the recently cicatrized surface.

Another marked advantage possessed by the method practised by Prof. Neill, over all the methods that involve loss of the nail, is the fact that renewals of the dressing to the diseased toe, after the first application, are comparatively free from pain. In order that this may be the case in all instances, it is essential that the application of the primary dressing be most thorough, especially that cotton be pressed well under the margin of the nail, so that the inflamed and ulcerated tissue shall be freed from a continuous source of irritation. I admit that considerable pain may

be provoked by the first attempts to insert cotton under the nail, although the exquisite sensitiveness of the parts is always lessened to some extent by the collodion that is previously painted over them. In the most aggravated cases, however, I have never yet found it necessary at the first dressing to administer an anaesthetic to the patient. On the other hand, every one knows that there are few surgical operations that are so painful as the forcible pulling out of an in-growing toe-nail and the cauterization of a highly-inflamed nail-bed. The bare thought of this operation is sufficient to excite a shudder, and quickly reconciles a timid patient to submit to anaesthetization in order that no pain shall be felt. Indeed, the suffering consequent upon the action of the caustic will continue for some time after the effects of the anaesthetic have passed off, unless some agents have been previously applied to the cauterized surface and have modified or neutralized the specific action of the caustic.

As an objection to the former method, it is alleged that the application of the dressing, which should always be the work of the surgeon himself, is troublesome, and occupies more time than the nature of the affection apparently deserves. It is true that every renewal of the dressing must be made by the surgeon himself, for the success of this special treatment depends principally on the thoroughness with which it is carried out in all of its details. Hence the method apparently involves more attention on the part of the surgeon than the method of extraction.

A complete and permanent cure without loss of the nail is the best result that can possibly be obtained, and consequently is sure to command the patient's gratitude to his surgeon for the skill with which he has treated his case. A knowledge of this fact ought to be a source of the highest gratification to the surgeon, and in a measure compensate him for the extra labor to which this peculiar treatment may have subjected him.

It now remains briefly to describe the instrument that Prof. Neill was accustomed to use with such universal success in the treatment of in-grown toe-nail. It is simply a round piece of polished steel, about ten centimetres (nearly four inches) in length, and a little less than two millimetres in diameter, with one end flattened.

Prof. Neill, when describing this little instrument to his class, used to tell them that it might be easily made from an ordinary knitting-needle. According to him, it was simply necessary to take a No. 16 knitting-needle to a blacksmith's shop, have it cut in two, and make one end of one of the pieces flat and sufficiently thin by hammering it out on an anvil. The sharp angles are to be rounded off. Of course a knowledge of this fact is of some importance to a physician who is not within easy reach of a surgical-instrument maker.

The flat end of a silver probe, which is sometimes used, will not take the place of a toe-nail probe made in the manner just described in the treatment of in-growing toe-nail.

The explanation of this is that the flat end of a silver probe is so thick that one finds it almost impossible to press cotton well under the side of the offending nail with it: therefore all attempts to substitute the silver probe for the toe-nail probe have ended in failure, and consequently have brought undeserved discredit on this method of treatment.

In treating cases of in-growing toe-nail, I found that cotton could be easily inserted beneath the free end of the nail with the ordinary toe-nail probe, but that some difficulty was experienced when I attempted to interpose cotton between the lateral margin of the nail and the exuberant granulations overlying it. It soon became evident that this difficulty lay in the fact that a straight probe was not of a proper shape to carry pledges of cotton down between the convex side of the nail and the exuberant or fungoid mass of granulations closely applied to it. As a consequence, therefore, with the introduction of the first small roll of cotton well beneath the incurved edge of the nail, the ulcerated and exquisitely sensitive nail-fold was always pressed down and more or less bruised, thus rendering the operation unnecessarily painful, and one that very few patients were willing to have repeated a second time. It occurred to me that cotton might be interposed between the edge or lateral margin of the nail and the nail-fold with less discomfort to the patient if the flat end of the probe were a little curved. Accordingly, I had the other extremity of the toe-nail probe flattened and slightly curved on the flat,

the curve corresponding with the convexity of the lateral margin of the nail.

The accompanying cut is a fair representation of the instrument. Now with the straight end of this little instrument cotton can be readily pressed under the free end of the nail; with the curved end the same material, with equal facility, can be interposed between the incurved edge of the nail and the nail-fold. To introduce cotton beneath the lateral edge of the nail with the probe thus modified, a small roll of it is to be placed in the groove between the nail and mass of granulations, collodion having previously been painted over the parts; then, with the probe held perpendicularly to the nail, with the concavity of its curved extremity looking towards the convexity of the side of the nail, the small roll of cotton is to be gently but firmly pressed down well under the lateral edge of the nail. The end of the probe should be gently pressed against the dense surface of the nail as it carries the cotton down between the nail and the contiguous soft parts, in order that the delicate granulations may not be injured. Successive small pledges of cotton are to be introduced in this manner till the offending edge of the nail and the diseased soft parts are sufficiently separated from each other. The remaining details of the treatment are to be carried out as already indicated.

In passing, it may be of interest to observe that no advantage is to be gained by stuffing a large mass of cotton between the nail and the nail-fold at the first dressing. When this is carelessly done, the dense mass of cotton is almost sure to act as an irritant, and, as a consequence, set up violent inflammation of the parts surrounding the nail, unless the cotton has been promptly removed before it has had time to do harm.

The uniform success that has attended this method of treating in-grown nails, not only in my practice but also in the practice of others who have carefully carried it out in all of its details, has induced me to recommend it as an almost certain means of curing this painful affection without loss of the nail. It is but fair to say, however, that some authorities deem the preservation of the nail of very little importance.

Mr. Jonathan Hutchinson, in a recent paper,* says, "The nails are of comparatively little use to us; for, however great might be the loss in beauty to the fingers, the substitution of a firm pad of tactile skin in the place of the nails would probably be a decided gain to a considerable proportion of our highly civilized communities." This assertion of Mr. Hutchinson's may be partially true, so far as the finger-nails are concerned, but I do not think it holds good when applied to the nails of the toes. It has always seemed to me that the nails formed a firm and resisting covering for the ends of the toes, and shielded them from the unpleasant effects of the intermittent pressure of the boot or shoe. It is certain that, if the extremities of the toes were not provided with nails, some other method than the present one would have to be devised for protecting the feet. The wearing of boots or shoes made of leather or other similar material would soon result in the development of corns on the unprotected surface of the toes, a condition that would make locomotion on foot exceedingly painful.

Whatever may be the functions of nails, to my mind it is perfectly clear that they ought not to be heedlessly sacrificed whenever it is possible to preserve them. The preservation of any part or organ of the body in a state of health, or its restoration to its normal condition when diseased, without impairment of structure or loss of function, is, in my opinion, the highest development of the art of surgery.

ALKALIES AND THEIR SALTS PROMOTING SOLUTION OF VEGETABLE MATTER.

BY E. T. BLACKWELL, M.D.

THE demand for elegant and palatable medicines has greatly stimulated pharmaceutical skill, and resulted in an extended list of preparations either involved by tasteless materials or otherwise rendered acceptable to the sense of taste.

To shape the cheaper and coarser drugs into a more efficient form, while diminishing the time employed for their preparation, shall be the effort of this paper. The suggestions to this end in works of pharmacy are susceptible of great expansion.

* Medical Times and Gazette, April 20, 1878, p. 423.

sion. The use of alkalies in the solution of resinous matters is well known, and their aid has been accepted in a few pharmaceutical compounds. In reducing the gum resins to the form of mixture this aid has been invoked in a single instance,* while its capabilities admit of a much wider application. The list of articles that may be so used is quite large,—the liquor potassæ, liq. sodæ chlorinatæ, many oxy-salts of potassa and soda, together with their iodides, chlorides, and bromides.

Of these, the liquor potassæ is among the most efficient; but, in making a selection, reference should be had to the therapeutical quality desirable in the adjuvant. In some instances the chlorinated solution of soda fulfills this object well. Rubbed with ammoniac, it develops a deep-red color, which quickly disappears. The borate of sodium also greatly facilitates the breaking-up of the agglutinating forces inherent in this class of drugs. The following prescriptions, which embody the principles herein set forth, have been practically tested, yielding satisfactory results:

R Myrrhæ, 3ss;
Potassæ iodidi, 3j;
Aq., Oss.

Triturate the first two ingredients, moistened by a very small amount of the menstruum, the balance being gradually added as the mass softens.

S.—C. p. queque hor. ter.

R Myrrhæ, 3j;
Sodæ boratis, 3j;
Aq., Oss.

R Myrrhæ, 3ss;
Ammoniæ hydro-chlor., 3ij;
Aq., Oss.

R Myrrhæ, 3j;
Liq. sodæ chlorinat., 3ss;
Aq., 3vii.

R Myrrhæ, 3j;
Potass. bromid., 3ij;
Aq., Oss.

All the above are prepared as in the first example, and one or two teaspoonfuls form a dose.

The changes may be rung in like manner on ammoniac, with a similar result, viz., quickness of preparation and a permanent form, there being no sediment that cannot easily be taken up by shaking the

mixture. The addition of any glutinous material before or during trituration hinders the operation.

Cold infusions of vegetable matter may be made with much facility by a short previous digestion in an alkaline solution. Labarraque's solution seizes immediately upon their texture, as is shown by its quick effect upon the color, the taste also attesting to the absorption of the bitter principle. Its stimulant, antiseptic, and antacid qualities greatly enhance its medicinal powers, while it is much less liable to fermentation than when prepared in the usual way.

R Gentianæ contus., 3ss;
Liq. sodæ chlorinatæ, f3vi;
Aq., 3vij.

Mix the gentian with the chlorinated solution, allowing it to digest one hour; then throw upon a percolator, adding the water as required.

S.—Take a tablespoonful before meals.

Liq. ammoniæ is a powerful solvent not only of resinous but of non-resinous vegetable matter. Of this I have availed myself in dissolving aconite for external use, producing very quickly a most concentrated anodyne and powerfully-stimulating embrocation:

R Rad. aconiti contus., 3j;
Liq. ammoniæ fff., Oj.

To the root add enough of the menstruum to cover and thoroughly moisten it. Digest for a few hours; place it in a percolator, following with the balance of the alkaline liquid and sufficient water to make a pint. It may be used alone, or with some stimulating oil, that of sassafras being one of the best.

A CASE OF PUPERAL ECLAMPSIA SUCCESSFULLY TREATED BY CHLORAL HYDRATE.

BY M. W. WARFIELD, M.D.

MRS. E., a primipara, æt. 35 years, is a tall, stout woman, of brunette complexion; married thirteen years. She has suffered from nausea and vomiting during the whole period of gestation. Four weeks since, I analyzed the urine, suspecting albuminuria, but obtained only negative results. I had made no examination since that time, nor had I seen her since, until her labor, January 7, when I found the patient still vomiting, and complaining of headache, although she had bled profusely from the nose. Face

* Mist. Ferri Comp., U.S.

swollen and purple; eyelids puffy, hands stiff.

The os was dilated to the size of a half-dollar; rigid. Head presenting in first position. The pains were regular.

The case progressed without accident. Bowels were moved by an active cathartic. Kidneys seemed sufficiently active until the bearing-down pains came on. At two o'clock P.M. Mrs. E. was suddenly seized with a violent convulsion. With such delay only as was caused by a lancet rusty from long disuse, I relieved the patient of a quart of blood (without arresting the convulsions), and sent to my office, three-quarters of a mile distant, for chloral hydrate and chloroform. When the messenger returned, as the patient was unable to swallow, I administered, per rectum, forty-five grains of chloral hydrate, using chloroform (of which I had but little) on a handkerchief until she came fully under the influence of the chloral. The spasms were arrested. I repeated the chloral injections as often as the effect seemed to wear off, until the close of the labor, which occurred about four o'clock P.M., when Mrs. E. was delivered of a female child weighing nearly ten pounds. I left my patient about seven P.M. restored to consciousness and able to converse, but was startled by a messenger two hours later who reported Mrs. E. to be dying. I hastened to the house, and found my patient quite delirious and very restless, requiring some one to hold her in the bed. She had had a strong convolution before my arrival. Again administered the chloral hydrate, this time ninety grains to the dose, with the same result as before. Stayed by the patient all night, and renewed the chloral as required, adding laudanum when my chloral was getting exhausted. Just before day, I was aroused from a doze, to hear her talking rationally and inquiring what had happened, etc.

As soon as Mrs. E. could swallow, I put her upon the following prescription, although I was not sure that her condition was due to uræmia:

Bitartrate potass., $\frac{3}{2}$ ss; Fl. ext. digitalis, 3ss; Syrup. squill, $\frac{3}{2}$ ss; Swt. spts. nitre, $\frac{3}{2}$ ii; Water to make $\frac{3}{2}$ viii.

Dose, two tablespoonsfuls every two hours.

To relieve the headache and guard against any return of the spasms, I ordered between these doses twenty grains bromide potass., all of which has acted favorably, and my patient is now convalescing rapidly.

My object in reporting this case is to impress on the profession the value of chloral in the treatment of eclampsia. In the course of my practice I have had a number of such cases, in only one of which (occurring about the fourth month of pregnancy) was I able to arrest the convulsions until de-

livery had been accomplished, although chloroform, bleeding, etc., had been tried. I attribute my success in the above case entirely to the free use of chloral hydrate.

LISBON, HOWARD CO., MD.

FIBROID TUMOR OF THE EAR.

BY ROBERT P. FINLEY.

HATTIE M., colored, aged 12 years, had two tumors, one situated on the lobe of each ear, standing out at right angles from the posterior surface. The tumor on the right lobe measured five-eighths of an inch at the base in diameter, about three-fourths of an inch at the free end, and half an inch in length. The tumor on the left ear measured half an inch at the base, five-eighths of an inch at the free end, and three-eighths of an inch in the middle, the length being one and one-quarter inches. The ears had been pierced about three years previous, when she was nine years old, with a common steel

sewing-needle. The tumors made their appearance one year after the ears were pierced. One peculiarity of the growth was the fact that the puncture made in piercing the ears extended through the entire length of the tumors. On August 2, 1878, Dr. H. M. Perry operated, removing each tumor *en masse*, the wound healing readily. The accompanying sketch shows the shape and situation of the tumor on the left ear, the one on the right ear being similar.

WINTER COUGH RAPIDLY CURED BY ATOMIZED CHLORAL HYDRATE.

BY ROBERT FLETCHER, M.R.C.S. Eng.

THE form of chronic bronchitis in elderly persons, known as "winter cough," is a source of so much discomfort to the sufferers and to those around them, and is so frequently the precursor of serious complications, that an additional remedy of apparent promise is worthy of being made known.

A lady of about 50 years of age, who has been troubled with a chronic cough for three or four winters past, upon returning from the sea-side in September was attacked with subacute bronchitis complicated with gastric disorder. This soon yielded to treatment, but left a rasping cough, which destroyed her rest at night

and seemed likely to continue throughout the approaching winter. After administering various remedies, in atomized form and otherwise, during several weeks, without much benefit, it occurred to me to try a spray of chloral hydrate. A solution of ten grains in an ounce of water was inhaled through a steam atomizer each morning and evening. Improvement was soon observed, and after two weeks' use of the remedy the cough entirely disappeared, and has not returned. The inhalation was continued, at increasing intervals, for a few days longer as a measure of precaution.

In a second case its employment was attended with a like successful result.

I do not remember to have seen chloral hydrate in the atomized form recommended in chronic bronchitis, and therefore suggest it as meriting further trial.

WASHINGTON, D.C.

TRANSLATIONS.

TREATMENT OF EPILEPSY BY MEANS OF CURARA.—Kunze (*Wiener Med. Presse*, 1878, No. 42) speaks of the unsatisfactory effects of those drugs usually recommended for epilepsy, as atropia, strychnia, bromide of potassium, or ammonium. The last two, he says, act, in his experience, for about six months, after which the attacks return with renewed violence and sometimes even double. This being the case, he thought of trying the effect of curara, experimenting with the view of ascertaining what limits could be set to the dosage of this powerful and dreaded agent. To his astonishment, he ascertained that doses of .03 centig. ($\frac{1}{2}$ gr.) could be administered hypodermically without danger, and that the first symptoms of poisoning—dimness of vision, with uncertainty of outline in near objects, together with some benumbing of the sensorium—only came on with larger doses. Kunze's observations extended to eighty cases, of which six were permanently cured; but he regards this number as too small to draw very decided inferences. The mode of treatment was as follows. The hypodermic injections were given every five days for three weeks, then were suspended, and the advent of the next attack awaited. The space of time intervening between the last hypodermic injection and the next attack gave the indication as to the further administration of the remedy. Binz adds

that otherwise fatal spasm can be cured by curara. A case of hydrophobia was thus cured at Münster. Binz has also tried experiments upon dogs poisoned with brucine. In five cases the dogs were saved by curara, while the "control" animals all died; in three cases the dose was too small. Binz urges further trial of curara, without regard to the symptoms of suffocation which it may at times produce, which indeed in the case of the invariably fatal hydrophobia does not weigh for much, in connection with the use of artificial respiration. Birch-Hirschfeld alludes to the great variety in the preparations, and advises previous experiments with animals. x.

AMENORRHEA DUE TO PREMATURE ATROPHY OF THE UTERUS AND TO PULMONARY TUBERCULOSIS.—Among the causes of amenorrhœa enumerated by Dr. Jacques Popper in his "Clinical Contributions to the Knowledge of Amenorrhœa," just published in the *Wien. Med. Presse* (see Nos. 39, 40, and 42, 1878), is atrophy of the uterus of the premature variety. He has seen twelve cases of this affection during the past year, and gives brief notes of each. Most of the cases were of married women who had ceased suddenly to menstruate after the birth of a child. In the case of the unmarried women anaemic symptoms were usually present. Examination by the sound showed different degrees of atrophy in the various cases, in some the uterus being almost too small to be perceived by the usual manipulations. With regard to amenorrhœa from tuberculosis of the lungs, this does not so frequently come to the notice of the gynæcologist, as patients are usually more interested in the lung trouble than in the uterine. The age of these patients was, in one case, 19; in two cases, 23; in two, 27; in four, 28; in one, 37. In two (one 19, the other 28) the menses had never appeared; in the others it had always been irregular, and had ceased with the earliest appearance of the chest trouble. x.

TUBERCULOUS ULCERATION OF THE MUCCOUS MEMBRANE OF THE HARD PALATE.—Quenu (*La France Méd.*, 1878, No. 85) had a case of pulmonary tuberculosis in a young man without syphilitic history, who complained of aphonia one day, and of picking in the larynx, with pain about the hyoid bone, on swallowing. A few days later the patient complained of smarting pain in the palate, and that liquid food

returned by the nose. On examination, an ulcer of the hard palate was discovered, which the patient said had originated in a little "wen" a week previously. This ulcer was on the median line, three or four millimetres from the incisors; it was elongated antero-posteriorly, and extended back to a line with the posterior molars. It was sharply punched out, sinuous in its outline, as if composed of various small ulcers which had united. The surface of the ulcer was covered with grayish-yellow débris: it was deeper in front, where it perforated the hard palate in an opening six millimetres by four millimetres. The mucous membrane of the posterior part of the palate was tumefied and covered with half a dozen small granulations. Farther forward, one centimetre from the line of the teeth, to the left of the ulcer, was a patch covered with caseous matter. Microscopic examination at the autopsy showed the corium of the mucous membrane presenting signs of intense inflammation; along the elastic fibrillæ were concatenations of embryonic cells, which at two points constituted small nodes of a roundish form; in the centre of one of these was an elongated deeply-colored granular mass; the elements forming the rest of the node were heaped up against one another, granular, indistinct except at the periphery, where the fibrillæ of connective tissue interposed between the cells. Around these nodes the cellular infiltration was much more marked; few vessels could be seen; the cellular elements diminished as the glandular layer was approached. The glands appeared healthy. In the immediate neighborhood of the ulceration the infiltration of the mucous membrane was such that stroma could hardly be perceived,—only a mass of embryonic elements, without any trace of vessels. In the velum palati the changes were even more marked, some glands being involved. The amygdalæ were also found infiltrated with cells, etc. The seat of this ulceration is rare. Spillmann, in his thesis, states that forty cases of tuberculous ulceration of the tongue are on record, and five or six of ulcer of the lip. Ulcers of the pharynx and isthmus fauci are more frequent. Spillmann gives no case of ulcer of the palate. It should be said that the perforation of the palate was through the bony canals, the contents of which were destroyed. The bone, though denuded of periosteum, was intact. x.

CYSTICERCI IN THE BRAIN AND EYE—DIAGNOSIS DURING LIFE.—Dr. Joseph Pollak (*Wien. Med. Presse*, 1878, p. 1480) was called to see a scrofulous boy of 8, who was meagre, but without any symptoms of disease in the thoracic or abdominal organs. He complained of severe pain in the head; often screamed out; occasionally passed urine and faeces involuntarily; vomited at once all food taken. The diagnosis was made of brain irritation; iced applications and leeches were ordered. At the next visit Dr. P. learned that the patient complained less, retained food upon his stomach, and felt much better. At a later visit (date not given) the patient was found lying apathetic, feverish, face and chest covered with perspiration; pupils enlarged; urine and stools passed involuntarily; abdomen tense. The child screamed and cried out on account of severe pain in the head. He had also had epileptic attacks. Two days later, Pollak, to his astonishment, found his patient sitting up in bed, appetite good, no vomiting, and no pain. Two days later again, symptoms of hydrocephalus showed themselves, and the patient fell into coma and died on the next day. The day before death it appeared that this dubious case, which first showed marked symptoms of hydrocephalus and then for days at a time displayed complete apyrexia, must either be a case of neoplasm or entozoa. The latter seemed the most plausible hypothesis, because the child showed continuous dilatation of the pupils and had had "worms." The evening before his death, Pollak examined the eyes of the comatose patient, and perceived, to his surprise, that the pupil first became dark and then light, evidently by some yellowish-white body, not more than a line in length, moving about in the ground of the eye. Closer examination left no doubt as to the diagnosis, although a post-mortem examination was not permitted. x.

LOTION IN PITRYRIASIS OF THE FACE.—
R. Liq. plumbi subacetatis, f3ss;
Vitelli ovorum duorum;
Aquaæ sambuci (Ph. Lond.), Oj.—M.

CHLORAL IN CHOLERA.—In the *India Medical Gazette* of December 2 are reported three cases of cholera treated by the hypodermic injection of chloral, and all fatal, although, we are told, the effect was very good in allaying spasms and procuring sleep.

PHILADELPHIA
MEDICAL TIMES.

PHILADELPHIA, FEBRUARY 1, 1879.

EDITORIAL.

PUBLIC HEALTH.

ALTHOUGH in our last issue we discussed the subject of national health legislation at some length, it seems necessary to recur to the matter. We desire also to reiterate, what we before distinctly intimated, that any seeming opposition to Dr. Woodworth is solely in respect to the present subject, and is not in any way based upon distrust of his ability to fulfil the duties of the office he now holds, or of his honesty in so doing.

Since we wrote, two bills have been presented to Congress and referred to committee. That of Mr. Withers differs from, but in its spirit accords with, the recommendation of the American Public Health Association. It refers the matter to the National Academy, directing this body not to appoint a commission, but to collect evidence upon questions of quarantine, etc., to prepare a plan for a national public health organization, "after consultation with the principal sanitary organizations and sanitarians of the several States and of the United States," and to report to the next Congress. This bill, we think, is even preferable to such a one as is indicated in the "memorial" of the Public Health Association. It certainly is not an attempt to raise a crop without preparing the ground.

The third bill before the committee is that of Mr. Matthews. It is much less objectionable than that of Mr. Lamar, which we noticed in our last issue, in that it makes the "Director-General of Health" the executive officer of a "Board of Health" of which he, the Surgeon-General of the Army, and the Surgeon-

General of the Navy are ex-officio members. The bill is a long and minute one, composed of seven sections and occupying nine printed pages. To discuss all its details would require more space than we can spare, and more detailed knowledge of quarantine and similar matters than we have at our disposal. The objection to it is that it is premature, it being impossible for a Congressional committee to see, this winter, every side of the question. Only after a prolonged, detailed, and thorough examination, such as the National Academy of Sciences is succinctly directed to make by the bill of Mr. Withers, can Congress with safety permanently legislate upon this most important and delicate subject.

LEADING ARTICLES.

SUBSTITUTES FOR CARBOLIC AND SALICYLIC ACID.

THYMOL—BENZOIC ACID.

IN accordance with the promise made in our last issue, we to-day discuss thymol and benzoic acid.

Thymol is found in the oil of thyme and of some other plants. It occurs either as an uncrystallizable liquid or in white rhombic or acicular crystals. It has been used with satisfaction as a substitute for carbolic acid by Volkmann and Ranke, of Halle, and other practitioners, but, although it is undoubtedly powerfully antiseptic, does not seem to have rapidly gained favor. Its fragrant odor has proved a decided disadvantage, in summer at least, by attracting swarms of flies. It is not free from poisonous properties. On the other hand, it is claimed that it does not irritate the skin, and has a decided influence in preventing discharges. Spencer Wells employs its watery solution (1 to 1000 of warm water); Volkmann, thymol 1 part, glycerin 20 parts, alcohol 10 parts, water 1000 parts. It has been used internally by Bälz (*Lond. Med. Record*, 1878) in doses of thirty grains a day, or less. In a few instances nausea and vomiting were caused. There was abundant sweating, singing in the ears, deafness, constriction in the forehead, reduction of temperature, and frequently diarrhoea. The urine was dark-greenish,

yellowish brown by transmitted light, free from albumen, becoming cloudy and grayish white on the addition of the tincture of the chloride of iron. Violent delirium occurred several times, also marked collapse, and, in one case of typhoid fever, unconsciousness, with most alarming collapse. Dr. Bälz concludes that the remedy is much less certain and more dangerous as an antipyretic than is salicylic acid. The possession of poisonous properties by thymol has been confirmed by the recent experiments of Dr. B. Kuessner (*Med. Times and Gaz.*, December, 1878, p. 716). This observer found that when given to dogs and rabbits by the stomach the poison acts very slowly and feebly, on account of its slow absorption, but that when injected into the circulation it produces death by failure of respiration. Coma is developed some time before death, and the blood-pressure, which at first maintains itself, now falls steadily. Post-mortem examination failed to detect fatty degeneration or other lesion in either the solid tissues or the blood. The continuous repeated exhibition of small doses of thymol had no perceptible effect, except to interfere in some way with nutrition, so that the animals lost flesh.

The evidence already forthcoming indicates that the therapeutic use of thymol will be very limited. Its costliness and the absence of marked advantages in its favor militate against its being largely used externally.

There is, however, one local employment of it which is important,—namely, as a detergent antiseptic in various ulcerated and diseased conditions of the mouth. For such use its agreeable taste and odor pre-eminently fit it. That anything whatever is to be gained by its internal use is not at all certain. Enough has been said to condemn it as antipyretic. Kuessner found the sugar in the urine of a patient with diabetes reduced by from one to two grammes of thymol per diem; but Fürbringer (*Deutsches Archiv für Klin. Med.*, xxi.) reports a case in which one gramme daily increased the sugar. Kuessner thinks thymol (three to five mimims of a one per cent. solution three times a day) of value in vesical catarrh and in infantile diarrhea, and that inhalations (one part to 1000) diminish the fever and expectoration of phthisical patients.

Benzoin acid, as is well known, is found

abundantly in the so-called gum benzoin, which almost from time immemorial has enjoyed a reputation among the vulgar as a vulnerary, and formed the basis of a host of such remedies as "Friar's Balsam," "Jesuit's Balsam," "Baume de Commandeur." Our modern compound tincture was in the older Pharmacopoeias a "balsamum traumaticum." The revival of the external use of the remedy seems, therefore, an instance of the not infrequent modern discovery of a scientific basis for some old, half-explored, beridiculed popular belief. That benzoic acid is very inimical to the lower forms of animal life is demonstrated by the experiments of Dougall (*Med. Times and Gaz.*, i., 1872), E. Solkowski (*Berl. Klin. Woch.*, 1875, 297), Grube (*Centralbl. f. Chir.*, 1876, 718), Bucholz (*Arch. Exper. Path. und Pharm.*, Bd. iv.), and Fleck (*Benzoësäure*, Munich, 1875). All these observers agree in giving a first rank to the drug as an infusoricide and preventer of putrefaction, most of them asserting its superiority to the much-lauded salicylic acid. Bucholz found a very perceptible effect upon the development of bacteria from .002 per cent. of benzoic acid, and that o.1 per cent. was absolutely lethal to them.

In regard to the toxic and other actions of the drug upon the human organism we have at present very little information. Schreiber took in two days about half an ounce of it, and suffered only a feeling of warmth in the abdomen, spreading over the whole body, and accompanied by increased pulse-rate, increased mucous secretions, and slight disturbances of digestion. Senator (see last number of this journal) has substituted it for salicylic acid in rheumatism, claiming that it rivals that drug in its control over the disease, and is free from its disadvantages. He found that its influence upon the temperature was more slowly exerted than that of salicylic acid, and seemed also less dominant. No case of poisoning by either benzoin or benzoic acid has ever been reported. The acid cannot be considered entirely free from toxic powers, however, as Grube found that massive doses of it cause in the dog intoxication, with disturbances of respiration and circulation, and palsy of the hind legs. In rheumatism Senator gives two to three drachms a day.

The revival of the use of the compound tincture of benzoin seems to be chiefly due

to Mr. Bryant. In compound fractures he closes the wound with lint saturated with compound tincture of benzoin, and maintains the application. The results obtained by him are said to be "almost uniformly satisfactory." (*London Lancet*, 1876, ii. 747.) Any one who will look over an old edition of Pereira will see that this practice very closely simulates or follows that directed by that authority, who says, "But when the edges of the wound have been brought together, the tincture may be carefully applied to the lint or adhesive plaster as a varnish or cement." The ease, simplicity, and cleanliness of this dressing certainly commend it. Mr. Jas. D. Bradburn, surgeon to her Majesty's government in Grenada, especially commends it on account of its efficiency and the readiness with which it may be employed by surgeons working in out-of-the-way places, where appliances are scarce. It would appear as though this treatment of wounds was especially adapted for the exigencies of frontier warfare; and we should be glad if the medical corps of our army would test it, and report the result in our columns.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY EVENING, NOVEMBER 14, 1878.

THE PRESIDENT, DR. H. LENOX HODGE, in the chair.

(Continued from page 193.)

Heart with lesions of the mitral and aortic valves, from a case of death from pulmonary hyperæmia. Presented by DR. LOUIS STARR.

I AM indebted to Dr. J. Cheston Morris for the opportunity of presenting this specimen, and also for the following clinical history, the patient having been under his observation for a long time before death.

"Mary E. C., aged 34, colored, suffered from inflammatory rheumatism and endocarditis in 1870, and was admitted to the Episcopal Hospital, and treated by Dr. Morris. Recovered, returned to work, but had from time to time more or less difficulty in breathing, and rheumatic pains, for which she was under the care of Dr. Morris. She was not obliged to give up her place or to take to her bed, until a short time before her decease, when she seemed to become feeble and lose spirits, and had a severe attack of gastro-intestinal irritation, with some resemblance to typhoid fever. On Monday previous to

her decease, she suffered from very acute dyspnoea; her pulse became feeble, and extremities cold; she was nearly pulseless for twenty-four to thirty-six hours before her death from pulmonary hemorrhage, on Saturday, November 2, 1878."

The post-mortem examination was made forty-eight hours after death.

On elevating the sternum with the costal cartilages, so as to expose the thoracic viscera, a peculiar, red fringe of tissue was observed, tightly adherent to the fibrous layer of the pericardium, and extending from its point of attachment to the diaphragm, on either side, almost to the base of the heart. This fringe was quite firm in texture, and was about an inch in width, and a quarter of an inch in thickness along the line of attachment: the free edge was thin and irregular. Subsequent microscopical examination by Dr. Simes proved it to be nothing more than intensely congested adipose tissue. The pericardium was thickened, and contained a small quantity of serous fluid. The heart was enlarged, both ventricles being dilated, and the wall of the left slightly hypertrophied. There was stenosis and insufficiency of the mitral valve, the orifice being funnel-shaped and narrowed so as barely to admit the tip of the index finger, while the edges of the leaflets were thickened and roughened upon their auricular surfaces. The aortic leaflets were thickened, and their under or ventricular surfaces were roughened, and covered with firmly adherent fibrinous deposits; one of these extended for an inch or more into the aorta, and interfered with the closure of the valve. The edges of the tricuspid leaflets were thicker than normal, and the pulmonary leaflets were fenestrated, but both valves were fully competent.

The lungs were in a condition of hyperæmia, especially the left, which was dark red in color, and non-crepitant except at the apex and along the anterior margin. On section, blood flowed freely from the cut surface. The liver was large and apparently fatty. The kidneys were moderately contracted. The ovaries were large and congested; the uterus was about the usual size, its tissue was pale and very dense, and connected with it by narrow peduncles were several small, very hard fibrous tumors.

In connection with this specimen, the following history of a case of cardiac disease, in which death was caused by edema of the lungs and pericardial effusion, is of interest.

Margaret —, aet. 78 years, a sempstress by occupation, of temperate habits, and having a healthy family record, was admitted to the Hannah Ward of the Episcopal Hospital on November 4, 1878. Her health was good until 1870. Since then she had suffered from time to time from subacute rheumatism, associated for twelve months past with symptoms of cardiac failure. When admitted, she was

in a condition of great prostration, and had constant difficulty in breathing; she had, too, a troublesome cough, attended with the expectoration of frothy mucus, occasionally streaked with blood; and she experienced frequent attacks of angina pectoris. There was no dropsy. The apex-beat of the heart was situated in the fifth intercostal space, nearly on the line of the left nipple; there was slight tenderness over the precordial region, and on auscultation two systolic murmurs were heard, one at the apex, and the other at the aortic cartilage. The physical signs of bronchial catarrh were likewise present. Death occurred on November 12, and was preceded by greatly increased dyspnea. Numerous small bubbling râles were heard over both lungs during the last twenty-four hours of her life. The *autopsy* was made thirty-six hours after death, by Dr. Anders, the resident physician. The thoracic cavity was examined first. The pericardial sac was distended with a straw-colored fluid. There was a large accumulation of fat about the heart, and the muscular tissue itself was pale and flabby. All the cavities of the heart were dilated. The edge of one of the mitral leaflets was thickened and roughened, the lesion being quite sufficient to interfere with the proper closure of the valve. The aortic leaflets were increased in thickness, and much less flexible than normal; the aorta was atheromatous, particularly in the vicinity of its orifice. The tricuspid and pulmonary valves were healthy. A few patches of atheroma were observed in the wall of the pulmonary artery close to the valve. The coronary arteries were atheromatous.

There were a few moderately firm pleuritic adhesions at both apices, and at the base of the right and the posterior portion of the left lung. The basal and posterior portions of both lungs, but especially the left, were edematous. The pulmonary tissue in these positions was reddish in color and soggy, and on section a quantity of liquid, mixed with blood and containing a few air-bubbles, escaped from the surface of the cut.

The abdominal viscera were normal, the kidneys showing no alteration but congestion.

Carcinoma of the liver, pancreas, and celiac glands. Presented by Dr. LOUIS STARR.

Thomas M., aet. 49 years, a laborer, was admitted to the medical ward of the Episcopal Hospital on October 26, 1878.

His family history was healthy. He had never had syphilis, and had always been moderately temperate in his habits. With the exception of an attack of pneumonia in early life, he had been little troubled with sickness until 1872, when he began to suffer from occasional asthmatic paroxysms, and from dyspepsia and constipation. He had never felt any anxiety about his health, however, until June, 1878, when he noticed that the ingestion of food gave rise to pain in the

epigastrium, and was quickly followed by vomiting, the material ejected being sometimes mixed with blood. Soon afterwards he became jaundiced, and commenced to fail in flesh and strength.

On admission, he was greatly emaciated and very weak. There was considerable pain in the epigastrium, extending through towards the back; marked, though not intense, jaundice; obstinate hiccup; frequent vomiting of food together with bile-stained mucus, and slight diarrhea, the evacuations having a green color and containing a small amount of blood.

Upon making an examination of the abdomen, the liver was found to be greatly enlarged, occupying and thrusting outward the epigastric and the upper part of the umbilical and right lumbar regions. The edges of both lobes could be distinctly traced with the fingers, and were thick, firm, and nodulated, while over the anterior surface of the organ several large and many small hard nodules could be perceived through the abdominal parietes. The upper border of the liver, as determined by percussion, was in the normal position. In contact with the left side of the abdominal aorta, just below the margin of the left lobe of the liver, a firm, convex mass could be felt.

Auscultation of the chest revealed dry pleural friction-sounds over the left side posteriorly.

The vomiting ceased soon after the patient entered the hospital, and there was some slight improvement in his general condition; but this lasted for a few days only, and was succeeded by rapidly-increasing prostration and death on November 8.

The *post-mortem* examination was made twenty-six hours after death.

On opening the abdomen, the small intestines were observed to be pushed downward and to the right, and the stomach downward, backward, and to the left. The left lobe of the liver filled the epigastric region, extending in the median line three inches and a quarter below the ensiform cartilage. The cleft between the right and left lobes was deep, and occupied a position a little to the right of the median line. The lower margin of the right lobe, anteriorly, was four and a half inches below the ensiform cartilage; laterally and posteriorly it was two inches lower still. The gall-bladder projected two and a quarter inches beyond the edge of the right lobe. The enlargement of the liver was symmetrical, and had taken place chiefly in a downward and transverse direction, the thoracic space not being materially encroached upon, and the border of the left lobe being almost in contact with the left side of the abdominal cavity. The edges of the organ were more obtuse than usual, and its capsule was thickened, especially along the anterior edge of the right lobe and over the superior surface of

the left lobe, in which situation it was tightly adherent to the diaphragm. Its weight was nearly six pounds. The hepatic tissue was dark-green in color, and thickly studded with hard white nodules, which were round or oval in shape and varied greatly in size, many being no larger than a No. 6 shot, while others measured an inch, and one, at the anterior part of the left lobe, two inches in diameter. These nodules were somewhat elevated above the surrounding surface, and a few of the largest were umbilicated. The gall-bladder was pear-shaped, was considerably distended, measuring five inches in length by three in width, and was filled with bile apparently normal in color and consistency. The cystic duct was patent. The hepatic duct with its two branches and the ductus communis choledochus were distended to at least four times their natural size. In addition to this general increase in calibre, there was a sacular dilatation of the common duct a short distance from the point of entrance into the duodenum; and just beyond this sac the duct was compressed by the head of the pancreas. The orifice of the common duct was large enough to admit an ordinary probe. The head of the pancreas was tightly adherent to the duodenum, and rested upon and stretched downward to the left of the abdominal aorta; the body of the gland extended upward and backward, the tail touching the spleen, which was situated behind the stomach, in contact with the posterior wall of the abdomen. The pancreatic tissue was firm, the head especially being hardened, nodulated, and enlarged. The pancreatic duct was considerably dilated. The cœliac glands were greatly enlarged and hardened.

The stomach was moderately large; its mucous membrane was thickened, congested in patches, and covered with tenacious mucus. On the smaller curvature, midway between the cardiac and pyloric orifices, there was a chronic ulcer, oval in outline, the longer diameter measuring about one inch, and being directed transversely to the axis of the stomach. The edges of this ulcer were well defined and slightly inverted. The base, formed by the thickened serous coat of the viscera, was paler than the surrounding mucous membrane, and smooth. In several positions the mucous membrane was eroded, probably by post-mortem digestion. The largest of these erosions, an inch and a half in diameter, was situated upon the smaller curvature, near the cardiac orifice. It was irregular in shape, with an uneven base and ill-defined, everted edges. The mucous membrane of the duodenum was also thickened, and over the seat of attachment of the head of the pancreas there was a large oval ulcer. The long diameter of this ulcer was parallel with the axis of the intestine; the edges were indurated and puckered, and the base seemed to be formed of the pancreatic tissue.

The spleen was healthy.

The kidneys were deeply stained by the coloring-matter of the bile, but were not otherwise abnormal.

The peritoneal cavity contained a small quantity of serous fluid, and the parietal layer of the peritoneum was thickened, particularly at the upper part of the abdomen. On opening the thorax, the left lung was found to be adherent over its whole surface to the chest-wall and diaphragm. The right lung was large and incompletely retracted, the air-cells of the upper lobe and of the anterior margins of the middle and lower lobes being in an emphysematous condition. At the lower edge both of the middle and of the lower lobe, laterally, there was a hard white nodule, slightly elevated above the surrounding lung-tissue, the one in the lower lobe, the larger of the two, measuring about half an inch in diameter. The lower posterior portion of each lung was edematous, and the serous fluid, which escaped freely on section, was tinged with bile. The bronchial glands were increased in size.

There was a small vegetation upon one of the leaflets of the aortic valve; in other respects the heart was normal.

The tissues throughout the body were more or less stained with bile.

The histological examination of the diseased organs was made by Dr. Simes, the pathologist of the hospital, who reported as follows:

"From a microscopic examination of the indurated portion of the pancreas, it is found to present throughout its structure a very great increase of the fibrillar connective tissue, both inter- and intra-lobular. Traversing this tissue are seen round, oval, and longitudinal sections of cylinders, lined with columnar epithelial cells.

"The new formations in the liver consist of similar elements and have an arrangement analogous to that seen in the pancreas.

"A thin section, taken from the margin of the ulcer situated in the duodenum, presents an arrangement of histological elements similar to that found in the liver.

"A section made from one of the enlarged glands taken from the fissure of the liver shows most distinctly the pathological new formation, which is here of the same character as that in the duodenum, pancreas, and liver,—viz., a cylindrical epithelioma."

From this report I am justified in regarding the carcinoma of the liver, the pancreas, and the lymphatic glands as secondary in nature, the primary lesion being seated in the mucous membrane of the duodenum.

Double uterus. Presented by DR. A. S. REYNOLDS.

S. F., æt. 24 years, died November 13, 1878, from typho-malarial fever. The history of the case, as far as relates to the malformation,

is as follows. She began to menstruate at 15 years of age; was always regular in time, but excessive in quantity. She was married at 19, had first child at 21 and second at 24 years of age, twelve weeks before death. Each confinement was followed by profuse post-partum hemorrhage.

The position of the uterus and appendices was seemingly normal, and they were only removed to examine what was at first thought to be some abnormal growth in the course of the right Fallopian tube.

On examination, the specimen is found to be a malformed uterus, double in all its parts above the external os.

The uterus in the line of the genital canal measures two and a half inches in length, is unicornous, and has a single Fallopian tube attached to its fundus, directly in a line with the cervical canal. The cervix is about one inch in length, and normal in thickness, except in its relation with the cervix of the second uterus to form a common external os, where it is somewhat thinner. While the external appearances indicate a uterus about normal in size and weight, it is seen in section that the walls are thicker and the cavity smaller than normal. As this uterus is the one in which the last conception occurred, it is probable that involution is not yet complete. In the ovary of this side can be seen several Graafian follicles and the corpus luteum of her last pregnancy.

Beginning at the very margin of the external os, on the right side, and running at right angles to the median line, is a canal, but little less in diameter than the normal cervix, three-quarters of an inch in length, expanding into the triangular cavity of the body of the second uterus, which measures one and a half inches in length, two inches in circumference, and one inch in diameter. The walls are about one-quarter of an inch thick. From the fundus is given off the single Fallopian tube, which, being normal, requires no description. The surface of the ovary of this side exhibits the cicatrices of several follicular eruptions.

As special pathological interest in the anomaly is unsupported by accurate clinical data, we will simply advance the following hypotheses:

1st. That the double uterus in some way explains the constant menorrhagia.

2d. That the complicated arrangement of the cervices may have been the cause of the excessive post-partum hemorrhage.

3d. That, as both organs seemed functionally active, double conception was possible, thus affording a unique and probably fatal complication of labor.

Report of the Committee on Morbid Growths. — "The histological elements of the portion of tissue submitted to your committee for examination are found to be spindle-shaped cells, containing the characteristic rod-shaped nucleus of smooth muscle-cells, arranged in

laminæ as seen in a section of the uterus; numerous blood-vessels cut in every direction were found.

"December 12, 1878."

Tumor of abdomen. Presented by DR. JAMES E. GARRETSON.

This specimen was taken from a tumor situated at the umbilicus of a lady who died at 51 years of age. She weighed two hundred and twenty pounds, and was about five feet five inches in height.

Nineteen years previous to her death, an umbilical hernia, about five or six inches in diameter, made its appearance. She wore a truss, and one of the supports passed over the lower part of the liver.

She gave birth to five children before the appearance of the hernia, and to five afterwards, the last seven years ago.

About a year since, pains commenced in the region of the liver, stomach, and umbilicus. Last June the pains became very severe, and soon after she was taken to her bed.

She had no fever during her illness, from last May until the week before her death. Her bowels were moved only after the use of an enema.

The faeces were whitish and soft; the urine was highly colored and ropy; her body at times was very yellow; she had no vomiting.

Six hours before her death, she had a discharge from her mouth, resembling broken-down blood.

The tumor formed and became hard in the place of the hernia, about six weeks before death.

Report of the Committee on Morbid Growths.

— "A microscopical examination of the specimen presented by Dr. Garretson exhibits the elements and arrangement of a carcinoma, variety scirrhus,—viz., groups of epithelial cells in alveolar spaces; the fibrillar connective tissue constituting the walls of the alveoli is considerable in amount.

"December 12, 1878."

PHILADELPHIA COUNTY MEDICAL SOCIETY.

A CONVERSATIONAL meeting was held at the Hall of the College of Physicians, Philadelphia, January 8, 1879, Dr. Henry H. Smith, president, in the chair. A paper on "In-growing Toe-Nail" was read by Dr. Charles T. Hunter, which, on motion, received a vote of thanks from the Society.

Dr. S. W. Gross inquired whether the operation recommended would prevent a recurrence of the trouble if the patient continued wearing the short, narrow shoes that originally caused it: in other words, is the cure a permanent one?

Dr. Hunter saw no reason why the condition should not return, if the exciting cause were again brought into play.

Dr. S. W. Gross said that, on this account, he would consider the operation proposed not as good as removal of a portion of the nail, and illustrated this by a diagram on the black-board. If the corner of the nail is imbedded in a mass of fungous granulations, a stout knife should be introduced under the lateral edge and made to split the nail from the root to the free border, separating a narrow strip, including the offending part, which, with its lateral matrix, is then dissected out. A radical and permanent cure may now be expected; and when thus properly performed he had never seen a recurrence. The tendency to return after the ordinary operation is such that it can only be considered as palliative, especially where a tendency to the condition is inherited. He agreed with the lecturer that the destruction of the entire matrix is a painful and unnecessary proceeding, and characterized it as a barbarous operation.

Dr. Hunter had performed the operation just described by Dr. Gross, and on several occasions had found that the cicatrix, by pressure of the shoe, is rubbed up against the edge of the nail and produced a return of the ulcer. The corner of the nail left by this operation is a sharp and not a rounded one, and is liable to produce irritation.

The operation proposed in the paper was not devised by Dr. Neill, but was frequently used by him. He improved it by the application of a peculiar instrument and the manner of packing. This leaves the natural rounded border to the nail, in contrast with the operation just proposed. He had performed the operation a great many times, with permanent cures in the majority of cases. As a rule it only required three packings, the first of which is painful, but not the others: cicatrization occurs in a very short time.

Dr. Gross said that he could not understand why, when part of the nail is removed, the trouble would be as likely to return as when the entire nail is allowed to remain. He had tried the plan proposed in the paper, and found that it is extremely difficult to insert the cotton under the posterior portion of the lateral edge near the semilunar fold, and that it caused considerable pain. In removing part of the nail, he would give the patient ether.

Dr. Hunter said that no difficulty is experienced in packing the cotton with the probe made for this purpose. The silver probe of the pocket-case will not do; it is not strong enough, and its end is too thick. He prefers jewellers' cotton for the purpose, and with it he had not had such trouble as Dr. Gross had mentioned.

Dr. Henry H. Smith took the floor, and, after speaking of the frequent occurrence of toe-nail ulcer, and the importance of correct ideas of its pathology and rational treatment, expressed his gratification that the teachings

and practice of Dr. Neill had thus been revived, although he had now been an invalid and great sufferer for a year or eighteen months and hopelessly confined to his room with a distressing malady. Now that his days of usefulness are apparently over, and he is apt to be forgotten by his fellows from being in retirement, it is pleasant to find that his works have not been entirely overlooked, and that justice has been paid him in referring to the treatment of the affection under discussion.

The palliative treatment of toe-nail ulcer is as old as the hills. The term *in-growing nail* is an unfortunate one, as it gives a false idea of the pathology of the affection. As a rule, it is not *in-growing* of the nail, but *out-growing* of the flesh that causes the trouble. False pathology leads to improper treatment. We should direct our attention more to the toe and less to the nail.

The nail grows from the matrix outward, and represents the horny layer of the epithelium of the skin. The derm does not cease at the semilunar fold, but is continued underneath the nail to the free border, where it is joined again by the epithelium, and also at the lateral edges of the nail. Pressure of these soft structures against the resisting nail by a short, narrow shoe, or a short stocking, produces irritation and finally inflammation, "*ubi irritatio ibi effluxus*," and the malady may be prevented, and indeed may be cured, by any method that keeps the soft parts from pressing against the nail. It would take too long to review the various plans of treatment that have been proposed for this annoying affection. The plan of packing cotton under the nail and applying a small compress on its side had been in use at the Pennsylvania Hospital for many years, by Dr. Rhea Barton and others, before Dr. Neill adopted it. The plan was to place a plect of cotton at each lateral edge of the nail, and envelop the toe in a narrow strip of sticking-plaster, thus pressing the granulations away from the nail. To show that a curved nail was not the original cause of the ulcer, Dr. Smith reminded Dr. Hunter of the specimens in the museum of the University of Pennsylvania, where are many examples of hypertrophy of the toe-nail to an enormous degree, some of them from six to nine inches in length. These hypertrophied nails are less apt to cause toe-nail ulcer than the ordinary short nail, because they pass away from the toe on to the back of the foot.

The writer of the paper had very properly referred to the danger of necrosis of the phalanx after cauterization of the matrix; but the pain spoken of is unnecessary, as the speaker had split up the nail and removed part of the matrix whilst the patient talked with a smile on his face during the whole operation, the sensibility of the toe being destroyed by the aid of the local anaesthetic effect of cold, as by

making a small cone of gauze containing ice mixed with salt, hollowing it out, and burying the toe in it until it is blanched. He objected to the plan recommended by Dr. Gross, because if the matrix is allowed to remain the nail will be reproduced. If the soft parts can be drawn away from the nail, the patient will be relieved, but the radical operation is sometimes an absolute necessity. The affection is a very annoying one, and some patients would prefer to submit to amputation of the toe rather than to suffer constantly from it.

Having recently received a letter from a correspondent who desired to be informed concerning Prof. Joseph Pancoast's operation, he inquired if any member present could describe his method.

Dr. S. W. Gross said that Dr. Joseph Pancoast's operation had been recently referred to in a clinical lecture in the *Medical Times* (p. 104), and consists in paring off the hypertrophied skin and applying adhesive plaster to draw the soft parts away from the nail.

Dr. W. Scott Wolford had performed the operation recommended by Dr. Gross, except that he had terminated it by one at right angles to the first, instead of dissecting out the matrix.

Dr. H. Leaman described a case of syphilitic disease of nail in a child, where he had applied solid nitrate of silver to the matrix to destroy it, and had failed to do so. A second and a third thorough application was followed by the same result.

Dr. McFerran had treated one case with a gum band applied so that the greatest tension was on the bottom of the toe. This was successful in drawing the soft parts away from the nail, and a cure resulted.

Dr. S. W. Gross reported a case of in-growing nail, where the structure was accidentally split in the middle by a horse treading upon it. The split remains, but the in-growing nail has been permanently relieved. He thought that this expedient of splitting the nail might be resorted to by the surgeon with benefit in some cases.

Dr. S. Ashhurst had been in the habit of cutting out a V-shaped portion from the free border of the nail, as far back as could be done without bleeding, in addition to packing under the edge of the nail.

Dr. W. R. D. Blackwood said that when in the army he had treated a large number of cases of in-growing toe-nail among the soldiers. He had found that if the nail were removed and he only cauterized to the semilunar fold, it would be reproduced, but that if the entire matrix were thoroughly cauterized, the nail would not return. Lately, he had been in the habit of scraping a groove in the centre of the nail as far down as the patient could bear it, and then packed cotton under the offending edges. During the treatment pressure should be prevented by wearing loose shoes.

F. W.

REVIEWS AND BOOK NOTICES.

HARVEY AND HIS DISCOVERY. By J. M. DA COSTA, M.D. J. B. Lippincott & Co., 1879.

This brochure of sixty pages is, like all the products of its author's pen, scholarly and well written. It gives a lively and interesting account not only of Harvey, but of other less known men, whose labors paved the way for Harvey, and who in their greatness were only surpassed by him. To any of our readers desiring to pass a leisure hour agreeably and to familiarize themselves with the history of one of the chief founders of modern medicine, we commend the book most highly.

NOTES ON THE TREATMENT OF SKIN DISEASES. By ROBERT LIVEING, A.M., M.D. Cantab., etc. Fourth Edition, revised and enlarged. New York, William Wood & Co., 1878. 12mo, pp. 127.

Dr. Liveing's little book begins with a brief account of the morbid anatomy, etiology, classification, etc., of diseases of the skin. Following this come a description of the various diseases, arranged in alphabetical order, and a definition of terms. Of course, in so small a book only the briefest account of the appearances, etc., is possible; but Dr. Liveing is a good dermatologist, and the essentials are usually mentioned. This Liebig's-extract sort of book, however, has its disadvantages: it is not nourishing diet. To the physician in full practice, with no time to read up on specialties, Dr. Liveing's book may be of use: it may be read between the hasty gulps of coffee at breakfast, or jerkily conned while pounding over the cobble-stones, or furtively peeped into on the staircase. Dr. Liveing has placed at the end of his volume a round hundred of formulæ,—like the man who wrote a book and put all his punctuation-marks at the end, so that the reader could place them to suit himself. This is very convenient. Having first caught your hare, so to speak, or made your diagnosis, Dr. Liveing will provide you with a formula to suit. Good as this book is (and it is very good of its kind), we cannot recommend it to any one desiring a knowledge of skin diseases. As a table-book for the practitioner, it is, so far as it goes, sound, and for the most part trustworthy.

A. V. H.

LECTURES ON LOCALIZATION IN DISEASES OF THE BRAIN. By Prof. J. M. CHARCOT. Translated by EDWARD P. FOWLER, M.D. New York, Wm. Wood & Co., 1878.

THE LOCALIZATION OF CEREBRAL DISEASE. By DAVID FERRIER, M.D. New York, G. P. Putnam & Sons.

If there have been in modern times any researches to which the German title of *Bahn-brechende*—path-breakers—is properly given, surely it must be those of Hitzig and Fritsch in Germany, and of Ferrier in England. Cerebral localization, indeed, was not then first born as an idea; it did, however, have its birth as a reality, passing at a bound from

the cloud-land of speculation to the firm basis of an experimentally proven doctrine. Although since the first memoirs the work accomplished is very great and the progress made has been very marked, no two workers have done more than those the titles of whose books surmount this notice. This fact alone gives great value to the two books, which are not compilations, but contributions of a most valuable kind to one of the most interesting of medico-physiological problems. The two volumes also are similar in that they are both fragmentary; but here the book of Ferrier has the great advantage, in being the complement of a previous work ("Functions of the Brain," New York, G. P. Putnam & Sons, 1876), whilst that of Charcot is the beginning of a work, an opening of the subject, not yet completed, and, judging from the previous writings of its author, never to be completed. To those who have Ferrier's first volume, the second must follow as naturally as though the two had been originally announced as one publication. Charcot's book is by no means included in that of Ferrier. It is, indeed, largely an anatomical study of the brain, and as such demands a place among the favorites of those who would thoroughly understand and compass cerebral localization: in its study of the cerebral circulation it must open new thought-territories to students not familiar with the labors of Duret and of Heubner.

**CONSPETCUS OF ORGANIC MATERIA MEDICA
AND PHARMACAL BOTANY.** By E. L.
SAYRE, Ph.G. Philadelphia, Dr. G. Brinton.

This book is of no interest to the practitioner of medicine: prepared by a graduate of pharmacy for the wants of students of pharmacy, it is scarcely applicable to the needs of the medical student. As far as a person who is not a pharmacist can judge, the book meets well the requirements of those for whom it is intended.

THE PRINCIPLES AND PRACTICE OF SURGERY. By JOHN ASHHURST, M.D. Second Edition, enlarged and thoroughly rewritten. Philadelphia, H. C. Lea.

Conscientiousness and thoroughness are two very marked traits of character in the author of this book. Out of these traits largely has grown the success of his mental fruit in the past; and the present offering seems in no wise an exception to what has gone before. The general arrangement of the volume is the same as in the first edition, but every part has been carefully revised, and much new matter added.

A MANUAL OF PHYSICAL DIAGNOSIS. By FRANCIS DELAFIELD, M.D., and CHARLES F. STILLMAN, M.D. New York, Wm. Wood & Co., 1878.

This very thin quarto of thirty pages contains, in a clear, condensed form, all the essential elements of the subject upon which it treats. It is systematic, and sufficient for the needs of the student, but for the practi-

titioner is not to be compared with the larger treatises in vogue. Its claims for usefulness above its competitors consist in its being interleaved, so as to allow the student to take notes in it, and in its being illuminated with "superimposed plates," which we are informed in the preface are of "much practical value." This may be the case, but we confess our inability to discover the nature or kind of the value, whereas we do see that by reason of their necessitating the present awkward form of publication, and adding greatly to the expense of the book, these superimpositions are a doubtful gain. To those whose more penetrating gaze can look through the various layers to the practical beyond, we heartily commend the brochure.

ARRANGEMENT OF DRUGS OF THE UNITED STATES PHARMACOPEIA ACCORDING TO THEIR NATURAL ORDERS. By F. MARION MURRAY, Ph.G., M.D.

This large chart is certainly capable of a useful purpose as an ornament to the walls of the medical and pharmaceutical rooms for daily study and reference. A candidate who should by it daily examine himself as to his knowledge of the drugs of a certain number of families would soon get to know himself so far as concerns his knowledge of *materia medica*.

MISCELLANY.

DR. JOHN B. BIDDLE, Professor of *Materia Medica* and *Therapeutics* in Jefferson Medical College of this city, died January 19, after an illness of about two weeks. He was the author of an elementary treatise upon *materia medica*, which has been very widely used by medical students; but his posthumous reputation will rest almost solely upon the enthusiasm and affection inspired by him in the lecture-room and by personal contact with the large classes he has taught through successive winters. Tall and commanding in person, with a dignified and kindly carriage, he was not only a medical orator, but also a rarely excellent dean and executive officer. He had long suffered from severe gouty ailments, but his unexpected demise leaves a vacancy in the faculty not easily properly filled. At the time of his death Prof. Biddle was in the sixty-fifth year of his age.

POISONING BY CHLORATE OF POTASSIUM.—Two children of a Dr. Kaufmann took each about half an ounce of chlorate of potassium. The youngest child, a girl two years and a half old, had severe vomiting, which lasted for seven hours, when she died of gastritis, in spite of all help. Another remarkable symptom of the poisoning was the profound lethargy of the child, which probably prevented its showing symptoms of pain.—*British Medical Journal*, December 28.

FORMERLY the American physician who

desired a reliable pepsin had to look abroad, and the name of Boudault was almost a medical household word. Now, American pep-sins are securing the world's markets. Prominent among these native brands is the *lactopeptine* of the New York Pharmacal Association. How much of its virtues may be due to the ptyalin, diastase, and pancreatin in it may be considered doubtful, but in our experience the preparation has acted as well upon patients as has any other pepsin we ever used.

THE number of deaths directly or indirectly caused by alcohol is undoubtedly very great, although in this country certainly not so great as Dr. B. W. Richardson estimates for Great Britain, namely, one-third the adult deaths. Some statistics collected by Dr. Morton, of London, seem to show that Dr. Richardson decidedly overshoots the mark, as, indeed, is to be expected of a temperance reformer. Even Dr. Morton, however, believes that more are killed by alcohol than by any one disease. The Harveian Society of London have appointed a committee to examine into the matter, and it is probable that they will get us some definite information.

DETERRENT EFFECT OF CAPITAL PUNISHMENT.—In the canton of Fribourg, which has 110,000 inhabitants, there were only seven cases of murder in the ten years between 1864 and 1874. In the latter year the punishment of death was abolished throughout the Confederation. During the three years immediately following that event no fewer than fifteen murders were committed in the canton, while this year alone there have been five cases of homicide, making altogether twenty in four years. Thus, when capital punishment prevailed, the murders were at the rate of less than one a year; now they occur at the rate of five a year.—*Medical Press and Circular.*

NOTES AND QUERIES.

A CORRECTION.

In our last issue, No. 291, the fenestra or mouth of the tubule, alluded to as "seen in the figure under the loop," in Dr. C. H. Burnett's article on the modification of Blake's-Wilde's auricular polypus snare, was accidentally broken off on the press. The corrected figure of the end of the instrument, showing the fenestra, is here given.

BLOCKLEY HOSPITAL, January 1, 1879.
TO THE EDITOR OF THE PHILADELPHIA MEDICAL TIMES:

DEAR SIR,—My attention has been called to the fact that many people in testing urine for the presence of glucose by means of the reduction of bismuth have so modified Böttger's test as to render it a source of error in diagnosis. The test is frequently performed as follows: Add to the suspected urine in a test tube a few grains of subnitrate of bismuth, then add an excess of liquor potassae, and boil.

The error is that the subnitrate of bismuth will be easily reduced to the black oxide of bismuth without the presence in the urine of the least trace of glucose. If water be substituted in place of urine, the result will invariably be the same. The liquor potassae will reduce the subnitrate of bismuth easily in

the presence of heat, and the black oxide will collect in the bottom of the containing vessel.

The proper manner in which to perform Böttger's test is to add to the suspected urine a few drops of dilute solution of nitrate of bismuth in nitric acid, render the liquid alkaline with carbonate of sodium, and boil. In the absence of glucose there will be merely the white precipitate of hydrate of bismuth, no matter how long it is boiled; but in the presence of the least trace of glucose the hydrate will become oxidized and the black precipitate will be produced.

Yours, very respectfully,

H. M. WETHERILL, JR.

A STORY OF SCIENCE.

BY ONE WHO KNOWS NOTHING ABOUT IT.

A philosopher sat in his easy-chair,

Looking as grave as Milton;

He wore a solemn and mystic air

As he Canada balsam spilt on

A strip of glass, as a slide to prepare

For a mite taken out of his Stilton.

He took his microscope out of his case,

And settled the focus rightly;

The light thrown back from the mirror's face

Came glimmering upwards brightly.

He put the slide with the mite in place,

And fixed on the cover tightly.

He turned the instrument up and down

Till, getting a proper sight, he

Exclaimed, as he gazed with a puzzled frown,

"Good gracious!" and "Highty-tighty,"

The sight is enough to alarm the town!

A mite is a monster mighty.

From t'other end of the tube, the mite

Regarded our scientific,

To his naked eye, as you'll guess, the sight

Of a man was most terrific,

But reversing the microscope made him quite

The opposite of "magnific."

"One sees the truth through this tube so tall,"

Said the mite as it squinted through it:

"Man is not so wondrously big, after all,

If the mite-world only knew it."

MORAL.

Mem. Whether a thing is large or small,
Depends on the way you view it!

—Fun.

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY FROM JANUARY 12 TO JANUARY 25, 1879.

IRWIN, B. J. D., MAJOR AND SURGEON.—Par. 7, S. O. 176, A. G. O., August 15, 1878, granting him one year's leave of absence, is amended to grant said leave on Surgeon's certificate of disability. S. O. 16, A. G. O., January 20, 1879.

KORRPER, E. A., CAPTAIN AND ASSISTANT-SURGEON.—The leave of absence granted him by S. O. 110, headquarters Department of the Platte, December 3, 1878, extended three months. S. O. 12, A. G. O., January 15, 1879.

LORING, L. Y., CAPTAIN AND ASSISTANT-SURGEON.—Relieved from duty at Fort Hays, Kansas, to proceed with Company B, 23d Infantry, to Fort Dodge, Kansas, and there report to Col. Jeff. C. Davis, 23d Infantry, for duty to accompany the troops of his command and take post with them. S. O. 12, Department of the Missouri, January 20, 1879.

WILCOX, T. E., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Granted leave of absence for four months. S. O. 16, c. s., A. G. O.

BARNETT, R., FIRST-LIEUTENANT AND ASSISTANT-SURGEON.—Assigned to temporary duty at these headquarters from ad. inst. S. O. 3, Department of the Plate, January 6, 1879; and 5 of January 14, 1879.

GRAY, C. C., MAJOR AND SURGEON.—Retired from active service, in conformity with Section 152, Revised Statutes. S. O. 8, A. G. O., January 10, 1879.